

NOTES ON THE BREPHIDÆ.

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The family *Erephidæ* as it stands in our lists contains only five species in two genera, *Brephos*, Ochs., and *Leucobrephos*, Grt., the latter described by Mr. Grote in the CAN. ENT., XV, p. 55, 1883, although first used, without description, in the Buff. Bull., II, 53, nine years previously.

Of the species referred to *Brephos*, only one, *infans*, Moeschl., is known in collections; the two species, *melanis* and *californicus*, described by Boisduval in his Lepidoptera of California in the Ann. Soc. Ent. Belg., XII, 1869, have remained unknown up to this time. Mr. Grote (l. c.) suggests that they are really Arctians, and I am inclined to agree with him. I have tried to identify the species with specimens of *Leptarectia*, but my series is not sufficient to quite make it. In the hope that some of the readers of the CAN. ENT. may be better off in that genus, I present the following copies of the original descriptions, freely translated:

BREPHOS CALIFORNICUS, Bdv.

Primaries fusco-cinereous, with three obsolete white maculæ; secondaries fulvous, with two black bands.

This has the appearance of *notha* and *puella*, but is smaller. The primaries above are of a grayish-black, with three little white spots, of which one is on the costa; another, much less pronounced, is toward the apex, and the third forms a small lunule above the internal angle. The secondaries are yellow, a little fulvous, crossed toward the middle by a black band which is constricted and interrupted; and outwardly the border is larger, black, with the fringe yellow. Beneath all the wings are yellow, with two common black bands. The female does not differ from the male except that the antennæ are more slender.

Found in the spring in the clearings in woods.

BREPHOS MELANIS, Bdv.

Primaries grayish-fuscous, with two obsolete white marks; secondaries black, immaculate.

Size and form of the preceding. The primaries are of a grayish-black, with two spots of dirty white, of which one is on the costa and the other, a little smaller, toward the internal angle. The secondaries and the fringe are completely black. Beneath, the primaries are traversed by a broad yellow band. We have seen only males.

Lives in the woods.

The particular reason which induced me to look up this matter is that I found among specimens sent me for determination by my good friend and the prince of good fellows, Dr. James Fletcher, a specimen of what appeared to be an *Annaphila*, which fitted nowhere, and was sufficiently odd in appearance to induce me to examine it more closely. To my surprise I found it a Brepheid, utterly unlike any other of our species, and because there is only one, and I know no other like it, I call it

BREPPOS FLETCHERI, n. sp.

Head and body totally black. Primaries sooty-black, with a vague trace of pale marginal and submarginal bands. The fringe is gray, with a black interline. Secondaries yellow, with a rather narrow black border, the inner margin of which is irregular, and a basal black area which extends from one-third the costal margin diagonally to the inner margin just above the anal angle, and does not quite join the outer black border. Beneath yellow; primaries with blackish marginal borders and an oblique black median fascia; secondaries with a minute black discal mark, a subbasal narrow blackish band and a narrow blackish terminal band much like that of upper side. Legs black, tarsi white-ringed at the joints; hair of under side grayish.

Expands: 1 inch = 25 mm.

Habitat: Coldstream, British Columbia, March 23; taken by Mr. E. M. Anderson. Numbered 1 and 13.

The interesting notes on the distribution of *Leucobrepbos Middendorfi* by Dr. Fletcher in the Ottawa Naturalist, induced me to inquire why *brepoides*, Wlk., was no longer found, though both Zeller and Grote had obtained (and redescribed) the species.

Dr. Fletcher's reference to the species was based on my determination, and my determination was based on Moeschler's work and his record in the Stett. Ent. Zeit., 1883, 117. I was in correspondence with Mr. Moeschler at that time, and he was good enough to send me an example of the Labrador material for study. Before I returned it I secured an excellent photograph, which for many years was the only representative of the species in my collection. Through Dr. Fletcher I finally secured an example of Mr. Criddle's capture from Aweme, and that might easily have been the original of the photograph made from Moeschler's example. It was *Middendorfi*, Moeschler, without doubt; but was it *Middendorfi*, Menetries? Moeschler in his work speaks positively enough: "Of this

interesting and in collections yet very rare species I received a clean ♀ from southern Labrador." But he makes no comparisons and no reference to Zeller's species described 20 years before in the same journal and figured.

I determined to make the comparison myself, and did so in the Academy of Natural Sciences at Philadelphia, where they have a copy of "Schrenk's Reise." Sure enough, as I had begun to fear, *Middendorfi*, Men, was not Moeschler's species, but a closely-allied representative; and on going further it became equally certain that all these references to *Middendorfi* really belonged to *brepoides*, Wlk., which is the only species thus far known to inhabit North America.

I am sorry, not because I made a blunder, for it is not the first one I have made, but because I have misled Dr. Fletcher and made him write *Middendorfi* instead of *brepoides*.

OUR SPECIES OF NYCTOBIA, HULST.

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Much confusion exists as to the status of the species, as now they are listed under this genus. In an endeavour to ascertain their true relationship, I have been gathering for some years a series which might be truly representative. The past year (1906) I captured a great number of forms in the Catskill Mts. from May 4 to 16, and have before me of both sexes, about evenly divided, 156 good examples. Beside these I have a small series taken by myself in Bronx Park, N. Y. Co., and another series of 16 from Lackawanna Co., Penn., through the kindness of Mr. Rothke, and one specimen taken on Long Island by Mr. Geo. Englehart, of the Children's Museum, Bedford Park, in this city. The group from the Catskills and those from Bronx Park all constitute one species, though their variations are endless, and come under the name *limitaria*, Walk. The other series from Pennsylvania and the single specimen from Long Island, are unquestionably the *anguilineata*, Grote, and are markedly different in arrangement of colour lines, presenting a bluish-black cast, not the brown and pale gray of *limitaria* and its varieties, and the texture of the wings is heavier, with apices more produced. They vary somewhat among themselves, but preserve their distinctive pattern, so that once known they are easily picked out among any number of the other species. The vertex and front are generally a chalky-white, with a black line crossing below